

REMARKS

Claims 1 - 46, 49 and 50 have been cancelled. Claim 47 has been amended. Thus, claims 47, 48 and 51 - 69 remain pending in this application. No new matter has been. In view of the above amendments and the following remarks, it is respectfully submitted that all of the pending claims are allowable.

Claims 47, 48, 51, 53-56, 58 and 60-69 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Published Appln. No. 2001/0028305 to Bennett Jr. et al. ("Bennett") in view of U.S. Published Appln. No. 2004/0074295 to Michalski et al. ("Michalski"). 7/3/08 *Office Action*, p. 2.

Claim 47 has been amended to recite a sensor unit, comprising "*a measured signal receiver registering a measured signal, which is a propagation time signal.*" The claim further recites "an A/D converter digitizing the measured signal" in combination with "a transceiver device wirelessly transmitting data to an environmental device" and "a processor activating the measured signal receiver, the A/D converter, and the transceiver device in such a way that, *that the measured signal is digitized and subsequently transmitted without signal processing after the A/D conversion, via the transceiver device, to the environmental device, the environmental device being coupled to an analysis unit which converts the measured signal into a measured value; wherein the sensor is a fill level sensor; and wherein the measured signal receiver transmits and receives one of a radar signal, an ultrasound signal and a guided microwave signal.*"

Claim 47 has been amended to include that the measured signal is a propagation time signal in order to emphasize that the sensor unit is based on propagation time determination and is thus an active sensor. In contrast, Bennett discloses a passive sensor, which may be, for example, in the form of sensor that moved vertically with a fluid level. *See Bennett*, p. 2, ¶ [0019]. When a certain fluid level is reached, the passive switch sends an alarm signal to the

receiver 28 indicating the measured value. *Id.* at p. 2, ¶ [0021]. Specifically, Bennett teaches that the receiver 28 senses a received signal from a transmitter module 24 so that the measured value may be displayed on a central station 30. *Id.* at p. 2, ¶ [0023]. No further signal processing is needed except for a modulation of the signal before its transmission to the receiver. The central station 30 merely controls, displays and functions as an alarm for the received signal and is not described as analyzing the signal in any way to convert the received signal into a measured value. *Id.* at p. 2, ¶ [0023]. Thus, it is respectfully submitted that Bennet does not show or suggest an active sensor, “*which is a propagation time signal*” wherein “*the measured signal receiver transmits and receives one of a radar signal, an ultrasound signal and a guided microwave signal*” and “*the measured signal is digitized and subsequently transmitted without signal processing after the A/D conversion, via the transceiver device, to the environmental device, the environmental device being coupled to an analysis unit which converts the measured signal into a measured value,*” as recited in claim 47.

The Examiner states, however, that it would have been obvious to one of ordinary skill in the art to combine the device of Bennett with the device of Michalski to cure the deficiency of Bennett. 7/3/08 *Office Action*, p. 3. Applicants respectfully disagree. As discussed above, Bennett specifically teaches a passive sensor, which does not process a propagation time signal. Thus, it is respectfully submitted that it would not have been obvious to one of ordinary skill in the art to combine the device of Bennett, which includes a passive sensor, with the device of Michalski to include an active sensor such as a radar signal, an ultrasound signal or a guided microwave signal.

Even if, however, the device of Bennett is modified with the device of Michalski, it is respectfully submitted that Michalski does not cure the deficiency of Bennett. Michalski discloses a device for measuring a filling level, for example, a filling level radar or an ultrasound sensor or a microwave sensor. *Michalski*, p. 2, ¶ [0012]. Specifically, Michalski describes a fill level measurement apparatus 1 determining a fill level L. *Id.* at p. 2, ¶ [0026]; *see* Fig. 1. Transmission signals produced in a signal production unit/transmission unit 5 are radiated from

antenna 17 in the direction of a fill material 11. *Id.* Measurement signals are received in the receiver unit 6 and, if necessary, transformed to intermediate frequency. *Id.* A clock rate of a measurement circuit 3 is controlled by a control/evaluation circuit 4 such that all processing of the measurement signals are performed within the apparatus 1. *Id.*; see Fig. 1. Thus, it is respectfully submitted that Michalski does not show or suggest a transmission of a digitized, unprocessed signal to an external device which then processes the original signal in order to determine a process value.

Therefore, it is respectfully submitted that neither Bennet nor Michalski, either alone or in combination show or suggest *“that the measured signal is digitized and subsequently transmitted without signal processing after the A/D conversion, via the transceiver device, to the environmental device, the environmental device being coupled to an analysis unit which converts the measured signal into a measured value,”* as recited in claim 47.

Accordingly, it is respectfully submitted that claim 47 is not rendered obvious by Bennett in view of Michalski and that the rejection of this claim should be withdrawn. Because claims 48, 51, 53-56, 58 and 60-69 depend from and include all of the limitations of claim 47, it is respectfully submitted that these claims are also allowable.

Claims 52, 57 and 59 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bennett in view of Michalski and in further view of U.S. Published Appln. No. 2003/0174067 to Soliman (“Soliman”). 7/3/08 *Office Action*, p. 6.

Soliman discloses a method and apparatus for wireless remote telemetry using ad-hoc networks. *Soliman*, p. 1, ¶ 10. Soliman describes a remote metering unit 200 that is applicable to electrical utility meter reading, comprising a measurement device 200, a reading interface 204 which transforms light pulses to analog electrical pulses and transmits them to an analog multiplexer, where they pass to an A/D converter to convert them into digital signals. *Id.* at p. 4, ¶ 39; Fig. 2. The resulting signal is passed to a microprocessor 214, which calculates and stores

total consumption. *Id.* Microprocessor 214 generates a consumption message to be transmitted to central controller 116. *Id.* at p. 4, ¶ 40; Fig. 1.

It is respectfully submitted that Soliman does not cure the above-described deficiencies of Bennett in regard to claim 47. Because claims 52, 57 and 59 depend from, and therefore include, all of the limitations of claim 47, it is respectfully submitted that these claims are also allowable.

CONCLUSION

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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